that for 1973 and 1974, resuscitation was carried out in 165 patients of all ages. Even in this younger (on the average) group "increasing instrumentation" *prolonged the act of dying for 57 persons and left 16 others to exist with brain damage.*

I have studied 46 consecutive "successful" resuscitations *in patients over 65* at Peninsula Hospital and Medical Center, Burlingame, California. Of the patients, 63 percent died of their underlying disease before they left the hospital. In other words, their act of dying was prolonged.

My personal survey of internists over 65 reveals that 50 percent, in the event they suffer an instantly observed and treated "arrest," would disapprove of CPR lasting more than five minutes for themselves. If they so desire, means are available to let our sapient patients in this age group make the same informed decision. A modified living will[1] can do just this.

I would be greatly interested in Dr. Coskey's figures for his patients over 65. I hope they are not as melancholy as those from three Nurnberg hospitals who reported in 1976 that 239 patients over 60 were resuscitated "successfully." At the end of six months, only nine were alive.[2]

I believe many patients would consider this impact on their lives as summun malum.

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Dr. Coskey Replies

TO THE EDITOR: Dr. Baer's letter reflects concern regarding possible brain damage in a patient who has otherwise undergone successful cardiopulmonary resuscitation (CPR). In our study 4 percent of all patients resuscitated had brain damage (as was shown in Table 1).[1] Patients 60 years of age or older, a total of 776 in number or 67 percent of the total 1,155 patients, had the same 4 percent incidence of brain damage as did the total group.

No time limit should be placed on CPR.[2,3] A four- to six-minute time interval might be considered if it were known that CPR was not appropriately applied and there was inadequate maintenance of cerebral blood flow. With correct application of CPR, adequate cerebral perfusion can be maintained for prolonged periods of time to prevent brain damage.

It is important in reviewing the 1973 and 1974 statistics (Table 1 of the article in the December issue) to point out that 92 patients *did not die* even though a lesser number did succumb to their underlying illness before hospital discharge. Few patients with brain damage live to see hospital discharge.[4,5]

The incidence of survival following CPR is inversely related to age. Nevertheless, 20 percent of 156 patients 60 years of age or older in this ten-year study were long-term survivors.

The data from the three Nurnberg hospitals[6] were indeed melancholy. Seven percent of the total group of 335 patients, or 24, were discharged from the hospital. Their data base is slightly different in that they only tabulated patients whose resuscitation lasted at least four minutes. Nevertheless, I would hope that, with experience and time, improvement will be noted, as was portrayed in Figure 1.

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Sex Education for Teenagers

TO THE EDITOR: The views of the Special Editor for Idaho, E. R. W. Fox, MD, in the November issue, "Sex Education for Teenagers," were most provocative. Dr. Fox suggests that physicians have been reluctant to advocate "family planning and sex education" (translation: contraception counseling) for teenagers for various and sundry reasons. Among these: because we "feared rebuff," "felt unqualified for lack of learning," "were not comfortable in dealing with this sensitive subject." I would challenge his explanations, and suggest that physicians have considerably more reason and justification for their reluctance than his essay would suggest.

Dr. Fox fails to consider, at all, the fact that many physicians may have "reneged" on their alleged "responsibilities" because they are really quite convinced that *this* approach is *itself* quite irresponsible. In fact, they may feel that his approach will do more harm than good, in the sense

of encouraging even greater teenage promiscuity, thereby, ultimately, aggravating the problem of premarital teenage pregnancy. In fact, considerable factual evidence can be cited in support of such a notion.

The first thing to note is that during the past five years, family planning agencies have made great strides in reaching more teenagers than ever before, with more of their services. The number of teenagers in organized family planning programs quadrupled between 1970 and 1975, from 300,000 to 1.2 million.[1] Abortion became legal and widely available to teenagers. Instruction in the use of contraceptives became a normal (even though unofficial) part of the curriculum in sex education courses all across the country. While it might have been possible in 1971 to claim that only a small proportion of the teenage population found contraceptive information and services available, this was simply not the case five years later.

It would seem reasonable, then, if Dr. Fox's thesis is correct, to expect a decline in teenage pregnancy and childbearing during this period. But the findings of Kantner and Zelnik, for example, show just the opposite.

In their 1971 study, 6.4 percent of the girls interviewed had had a premarital pregnancy.* By 1976 this proportion had jumped to 9.3 percent, an increase of 45 percent.[2] This was obviously related to a nearly equal increase (41 percent) in the percentage of girls who had had premarital intercourse, from 26.3 percent in 1971 to 37.2 percent in 1976.[3] The rate of out-of-wedlock births, despite the legalization of and widespread recourse to abortion, increased from 10.3 per 1,000 in 1971 to 12.1 per 1,000 in 1975, up 18 percent.[4] And even if we take into account the increase in sexual activity among teenagers, and consider only the rate of premarital pregnancy among those who were sexually active, *there was still an increase* of about 4 percent, from 24.3 percent in 1971 to 25.2 percent in 1976.[2]

Zelnik and Kantner themselves admit to having a little difficulty with this anomaly:

> If all other factors had remained the same, the substantial increase in the prevalence of premarital sexual experience among teenage women between 1971 and 1976 might have been expected to result in an increase in premarital pregnancy. Over the same period, however, these same young women reported a dramatic increase in overall contraceptive use, in use of the most effective methods, and in more regular use of all methods—changes which, other things being equal, should have led to a decrease in premarital pregnancy. . . . The lack of decline is somewhat surprising in light of data previously presented on changes in contraceptive practices.[5]

Those changes in contraceptive practices were significant indeed during the five-year study period. In 1971 only 19.7 percent of the sexually active girls had used a contraceptive every time they had intercourse. By 1976 this had grown to 30.2 percent.[6] Perhaps more significant, fewer than half the girls in the 1971 sample (45.1 percent) had used a contraceptive on their last sexual encounter before they were interviewed. In 1976 almost two thirds (64.8 percent) had,[6] and they were using the most effective medical methods of contraception. In 1971 only 13.8 percent of the sexually active girls were using birth control pills or intrauterine devices (IUD). This percentage more than doubled by 1976, to 33.3 percent.[7] Zelnik and Kantner had good reason for expressing surprise at the "lack of decline" in teenage pregnancy. This "lack of decline," let us recall, is actually an increase.

But the ineffectiveness of contraception for teenagers is something that has been well known at least since 1973, when Ryder published his study showing that the failure rate among young women using oral contraceptives was four to five times higher than that among older women.[8] And when this fact is read in light of the earlier study by Ryder and Westoff,[9] showing that even older, married women are none too successful in preventing unintended conceptions, the situation appears even worse.

In view of these findings, of which every advocate of the contraceptive approach should be aware, it would seem irresponsible to teach teenage girls that they can reliably avoid pregnancy by using the contraceptive approach.

There are some, like Dr. Fox, who look upon contraceptive programs for teenagers as an alternative to abortion. But Kantner and Zelnik inadvertently show how illusory is the hope of reducing the so-called "need" for abortions by giving teenagers contraceptives. They compared the percentage of contraceptive users among those girls who obtained an abortion with the percentage of contraceptive users among those with some other pregnancy outcome, and found that "those young women having an abortion are seen to be

*Here and throughout, I am citing Kantner and Zelnik's figures for "white" teenagers (which includes all nonblacks). This is because, by their own admission, their figures for blacks are neither internally or externally correlatable, and because the data for "whites" display trends more clearly.

almost twice as likely to have been contracepting at the time pregnancy occurred."[10] In other words, girls who become pregnant while using a contraceptive are more likely to seek abortion than those who become pregnant without using a contraceptive.

So, far from being an alternative, family planning programs for teenagers are an inducement to abortion. They help to build a new clientele for the abortion clinics.

Perhaps Kingsley Davis said it all, and said it most succinctly, in his report to the United States Commission on Population Growth and the American Future:

> The current belief that illegitimacy will be reduced if teenage girls are given an effective contraceptive is an extension of the same reasoning that created the problem in the first place. It reflects an unwillingness to face problems of social control and social discipline, while trusting some technological device to extricate society from its difficulties. The irony is that the illegitimacy rise occurred precisely while contraception was becoming more, rather than less, widespread and respectable.[11]

It would not be possible, on the basis of the available data, to state categorically that the current increase of promiscuity among teenagers is directly and solely caused by the increased availability of contraception and abortion. However, this must be considered a most likely causative factor since this was the chief pertinent variable in the sexual environment of teenagers in the five-year period under discussion. Dr. Robert Kistner of Harvard Medical School, a developer of the oral contraceptive, lent his support to this hypothesis in speaking to the American College of Surgeons in December 1977: "About ten years ago I declared that the pill would not lead to promiscuity. Well, I was wrong." *(Family Practice News,* Dec 15, 1977, p 1.)

Kistner's about-face on this question was prompted by his own experience in treating a steadily increasing number of young pill users for venereal disease and cervical canver, both of which have been linked to sexual promiscuity. Kistner asserts that the introduction of birth control pills has been a major causal factor in the rapid increase in both venereal disease and cervical cancer among adolescents by stimulating higher levels of promiscuity.[12]

For generations, parents taught their children moral responsibility and gave them the foundation on which to build their own families. This system was not perfect, but it produced better results than the current programs. It gave children reasons for preserving their chastity, and it supported them in doing so until they were mature enough to make responsible use of their sexual faculties. Parents could still do that. Indeed, many parents still are doing it, in spite of the general permissiveness around them. But if parents are to be effective in giving their children the moral training they so desperately need, they will have to be supported, not undermined, by government agencies, the medical profession and society at large.

We see few people nowadays suggesting that teenagers can control their sexual impulses, or that they might want to. Nor do we see very many of our opinion leaders applauding the ideal of self-mastery, or suggesting that we encourage such an ideal in our young people. (Even Freud, although he felt unconscious repression was harmful to the psyche, did not negate the value of sublimation or conscious suppression of impulses.)

Instead, it is becoming more and more apparent, as one views the passing scene, that some of the most respected elements in our society are, today, directly or indirectly, bent on encouraging teenage sex, and then hypocritically decrying the quite predictable results.

Advocates of the contraceptive approach have been known to scoff at those who favor chastity as the better "solution." Ironically, even while abstinence is ridiculed and the difficulties of chastity are increasingly exaggerated, efforts to explain away the deficiencies of the contraceptive approach (as noted above) are foundering.

Furthermore, the fact that parental and societal efforts to encourage chastity fall short of a perfect solution (and currently seem much less adequate than in previous years) should not cause us to lose sight of the fact that a great many teenage girls are still using abstinence, and, as a result, have not become pregnant. Were it not for them, the problem of premarital pregnancy would have been far greater than it now is. And it should be noted here that these teenagers have achieved and maintained this difficult and remarkable ideal in the face of a milieu that is not only pervasively unsupportive, but often actually hostile, toward the ideal of chastity.

In this context, I would emphasize Zelnik and Kantner's finding that 60 percent of the teenage girls in their study used abstinence as a method of pregnancy prevention.[13] Using this approach, these girls ran a *zero risk* of becoming pregnant. This fact alone suggests the wisdom in advising

all teenagers that abstinence is the only completely reliable method of pregnancy prevention for them.

But then, if we are to succeed in selling more teenagers on the value of chastity as the more reliable method, it will obviously be necessary to begin emphasizing the risks of failure in contraceptive usage, rather than falsely promising contraceptives as an easy escape from the natural consequences of premature, irresponsible sexual activity.

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Dr. Fox Replies

TO THE EDITOR: The thoughtful comments of Dr. Ford deserve consideration. It becomes quite obvious that he and I share many of the same convictions.

Unfortunately, the title "Sex Education for Teenagers" did not accurately portray the meaning of my correspondence. My contention, simply stated, was that we doctors, who by definition are supposed to be leaders and teachers, could be doing—and should be doing—a better job of leading and teaching in our communities. We have done a creditable job in teaching about athletic injuries. We willingly espouse programs for immunizing our younger generation. And yet, we draw back when it comes to dealing intelligently and unemotionally with teenage sexuality.

Dr. Ford and I are again in total agreement when we express a hope for a resurgence in morality, for a return to love with commitment and for a return to a high value of the family unit. As a father and a grandfather I know that most young people will, when given honest answers and straightforward information, hold to these simple values. And we, as physicians, should accept our share of the obligation to supply this information.

And so we come to the bottom line: 1 million teenage pregnancies a year, and almost 400,000 teenage abortions. These are distressing facts. Any physician who cares for pregnant teenagers is dismayed and saddened by their lack of knowledge in these matters so vital to their future mental and physical health. Someone sagely remarked that "getting pregnant doesn't require much knowledge, but not getting pregnant does." Haven't we in the medical profession always contended that we want our patients to be knowledgeable about the total health of their minds and their bodies?

If we as parents have been lucky enough to bring our sons and daughters through their teenage years without mishap, we still should not be blinded to the fact that there must be widespread sexual activity if we are confronted by 1 million teenage pregnancies each year. It follows that if we would deny a person access to contraception, then we must support the termination of life by abortion.

Somewhat to my surprise, the several letters I have received in regard to my comments in THE WESTERN JOURNAL OF MEDICINE were from women, all of them doctors' wives, and all mothers of teenagers. They all chorused the same sentiment: "Right on!"

Could there be a message here for us male physicians, husbands, fathers?

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